FlyBy Math™ Alignment
Michigan Mathematics
Grade Level Content Expectations v.6.04

Strand: Number and Operations

Solve problems

Grade Level Content Expectation	***FlyBy Math*™ Activities**
N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use the distance-rate-time formula to predict and analyze aircraft conflicts.

Strand: Algebra

Understand the concept of non-linear functions using basic examples

Grade Level Content Expectation	***FlyBy Math*™ Activities**
A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inverse functions ($y = k/x$), cubics ($y = ax^3$) roots, ($y = \sqrt{x}$), and exponentials ($y = a^x$, $a > 0$), using tables, graphs, and equations.	--Represent distance, speed, and time relationship for constant speed cases using linear equations, and a Cartesian coordinate system. --Use tables, graphs, and equations to solve aircraft conflict problems.
A.PA.08.02 For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect the others.	--Represent distance, speed, and time relationship for constant speed cases using linear equations, and a Cartesian coordinate system. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.
A.PA.08.03 Recognize basic functions in problem context, e.g., area of a circle is $\prod r^2$, volume of a sphere is $4/3 \prod r^3$, and represent them using tables, graphs, and formulas.	--Use tables, graphs, and equations to solve aircraft conflict problems. --Use the distance-rate-time formula to predict and analyze aircraft conflicts.

Understand solutions and solve equations, simultaneous equations, and linear inequalities	
Grade Level Content Expectation	***FlyBy Math™* Activities**
A.FO.08.11 Solve simultaneous linear equations in two variables by graphing, by substitution, and by linear combination; estimate solutions using graphs; include examples with no solutions and infinitely many solutions.	--Represent distance, speed, and time relationship for constant speed cases using linear equations, and a Cartesian coordinate system. --Use tables, graphs, and equations to solve aircraft conflict problems.
A.FO.08.13 Set up and solve applied problems involving simultaneous linear equations and linear inequalities.	--Represent distance, speed, and time relationship for constant speed cases using linear equations, and a Cartesian coordinate system. --Use tables, graphs, and equations to solve aircraft conflict problems.